

4. HIGH DAY TEMPERATURE AND SLEEP OUT BEHAVIOUR
OF ELLIOT'S GIANT FLYING SQUIRREL *PETAURISTA PHILIPPENSIS* (ELLIOT)
IN SITAMATA WILDLIFE SANCTUARY, RAJASTHAN, INDIA

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The Elliot's Giant Flying Squirrel *Petaurista philippensis* is confined to Mahuwa *Madhuca indica* belt of southern Rajasthan (Tehsin 1980; Chundawat *et al.* 2002; Menon 2003; Sharma 2007). This species is commonly seen in two wildlife sanctuaries of southern Rajasthan, namely, Sitamata and Phulwari-ki-nal.

It is a nocturnal animal, which usually roosts in hollows of trees or sheltered places among the branches. It comes out from its hiding sites at dusk and retires before dawn (Prater 2005).

Arampura, a forest outpost of Sitamata Sanctuary is famous for its Mahuwa groves and Elliot's Giant Flying Squirrel *Petaurista philippensis*. On May 22, 2010, the maximum temperature of Dhariwad, a station 20 km away from Arampura, was 47.7 °C. The temperature of a few surrounding stations on May 22, and 23, 2010, is given in Table 1.

Nearly a 50 m away from the outpost building, we observed a *P. philippensis* repeatedly peek from a hole in a Mahuwa tree. Despite the presence of many humans, it emerged from its hiding site at about 15:40 hrs. Within no time it skulked in the foliage slightly away from its hole. It remained hidden in the foliage for five minutes after which it slept on its back on a thick bough keeping its belly upward. Dense shade was available at this sleeping site, though a few thin light beams were penetrating down through the foliage. The squirrel remained in this posture for c. 15 minutes and then retired to its hole.

According to Prater (2005), during hot weather, flying squirrel may sleep on its back with legs and parachute outspread. The animal cools itself in this manner in the tropical forest.

In the present case, though a nocturnal animal, flying squirrel emerges even during day time for sleeping outside the hole. The animal was probably uncomfortable inside the hole due to the high temperature and hence ventured out to get relief from the heat.

Table 1: Maximum temperature of a few stations near Arampura on May 22 and 23, 2010

Date	Locality	Max. temp. recorded (°C)
22.v.2010	Mt. Abu	40
22.v.2010	Udaipur V	45
22.v.2010	Dhariwad	47.7
22.v.2010	Bhilwara	47
22.v.2010	Dabok	45
23.v.2010	Chittorgarh	47.5
23.v.2010	Udaipur	45.2
23.v.2010	Dhariwad	48.6
23.v.2010	Bhilwara	48

During April to June 2010, the temperatures ranged from 40-48 °C in southern Rajasthan. The internal temperatures of the hollows probably became unbearable for the flying squirrel due to high temperature conditions. To rid itself of the unpleasant temperature of the hollows, the squirrels dared to come out for sleep. This "sleep out" behaviour was seen four times in the Sitamata Sanctuary. The "sleep out behaviour" in all cases was observed during afternoon session between 14:00 hrs and 16:30 hrs. This behaviour was also noticed in Phulwari-ki-Nal Sanctuary from April to June (Hankla Gameti pers. comm. 2010).

Since Mahuwa growth is thick in Sitamata and Phulwari sanctuaries, and squirrels remain undetected due to dense foliage, it is likely that the animals feel safe under the dense cover of foliage. No natural predator was seen, so far, in the study area. It is the safety factor and high heat inside the holes which induced the "sleep out" behaviour in the squirrels.

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REFERENCES

CHUNDAWAT, P.S., S.K. SHARMA & H.S. SOLANKI (2002): Occurrence of the Large Brown Flying Squirrel (*P. petaurista philippensis*)

in Phulwari Wildlife Sanctuary. *Zoos' Print Journal* 17(11): 1941.

MENON, V. (2003): A Field Guide to Indian Mammals. Dorling Kindersley (India) Pvt. Ltd.
 PRATER, S.H. (2005): The Book of Indian Animals. Bombay Natural History Society. Oxford University Press, UK.
 SHARMA, S.K. (2007): Study of Biodiversity and Ethnobiology of

Phulwari Wildlife Sanctuary, Udaipur (Rajasthan). Ph.D. Thesis. MLS University, Udaipur (Raj.).
 TEHSIN, R.H. (1980): Occurrence of the Large Brown Flying Squirrel and Mouse Deer near Udaipur, Rajasthan. *J. Bombay Nat. Hist. Soc.* 77(3): 498.

5. FIRST RECORD OF ALBINO SAMBAR *RUSA UNICOLOR* (KERR) FROM CORBETT NATIONAL PARK, INDIA

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A rare sighting of an albino Sambar *Rusa unicolor* (Kerr 1792) was made on June 19, 2010, in the core area of the Corbett Tiger Reserve. The forest department informed us about the occurrence of a white-coloured Sambar in the Jamunagawd beat of Jhirna range. As a part of the tiger monitoring team, we visited the area to get photographic evidence.

At 29° 30' 0.8" N and 78° 55' 30.3" E, we observed a white Sambar fawn (Fig. 1) accompanied by its normal coloured mother. The fawn was pure white with reddish snout and red eyes. The inside of the ears was pinkish. The fawn was feeding on grass and did not exhibit any abnormal activity.

Earlier Champion (1938) sighted an albino Sambar hind in the mixed Sal and Chir pine forest near Chaukhamb in the hills of Kohtri valley. Pillay (1953) also reported seeing an albino Sambar hind and an albino Sambar stag from Talamalai range of north Coimbatore. Another record of a museum specimen of albino Sambar from the Archaeological Museum of Udaipur was given by Tehsin (2006). Sangai Express



Fig. 1: Albino Sambar *Rusa unicolor* sighted at Corbett Tiger Reserve

(March 30, 2010) published the birth of a white coloured fawn on March 23, 2010, at Manipur Zoological Garden, Iroishemba.

REFERENCES

CHAMPION, H.G. (1938): An Albino Sambar. *J. Bombay Nat. Hist. Soc.* 40(2): 322-323.
 PILLAY, B.S. (1953): An Albino Sambar. *J. Bombay Nat. Hist. Soc.* 51(4): 935.
 TEHSIN, R.H. (2006): An Albino Sambar *Cervus unicolor* Kerr. *J. Bombay Nat. Hist. Soc.* 103(1): 97.

6. CONSERVATION STATUS OF RAJAJI-CORBETT CORRIDOR FOR TIGER AND ELEPHANT MOVEMENT

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Rajaji-Corbett corridor, composed of two stretches of forests, connects two tiger-elephant national parks in northern India. The southern stretch (c. 300 sq. km), including the

forests of Haridwar forest division and Bijnor plantation division, is highly fragmented and heavily disturbed. Although used by elephants (*Elephas maximus*), due to high levels of